

AN UTILIZATION BEHAVIOUR OF LEARNERS OF DIPLOMA IN AGRI- INPUTS COURSE THROUGH OPEN AND DISTANCE LEARNING MODE

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ABSTRACT

The study showed that 59.20 per cent of the respondents were found at medium level of utilization behaviour followed by 26.10 and 14.70 percentages at high and low levels of utilization behaviour. Educational status, Progressiveness, Content credibility, Perceived experiences, Information seeking behaviour, Information sharing behaviour, Message clarity, Appraisal on teachers teaching, Perception on physical facility and Perception on teacher taught interaction had positive and significant relationship with the utilization behaviour of learners of Diploma in Agri Inputs course. Perception on teacher taught interaction, occupational status, appraisal on teacher teaching and perception on instructional methods had positive and significant influence with the utilization behaviour of learners of Diploma in Agri Inputs course through Open and Distance learning mode.

KEYWORDS: Diploma in Agri Inputs, Open and Distance Learning, Utilization Behaviour, Correlation & Regression

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INTRODUCTION

Fortified by the successful establishment of an Open University at state level in Andhra Pradesh during 1982, the Union Government also established Indira Gandhi National Open University by an act of parliament on September 20, 1985 (IGNOU Act, 1985). The Directorate of Open and Distance Learning, one of the constituent units of the Tamil Nadu Agricultural University was started during April 2005.

Distance education is an education method that spreads technologies more widely everyday than traditional modes of teaching (Karaduman and Mencet, 2013). Advances in interactive and educational technologies force us to change the existing teaching and learning paradigm (Altunisik, 2013). One factor that affects students' success in Open and Distance Learning is the extent of learning communications and interactivity made available to them (Dzakiria et al., 2013). Open and Distance Learning in a multi-dimensional concept is aimed at bridging the time, geographical, economic, social, educational and interactive distance between student and institution, student and educator, student and courseware, and student and peers. It focuses on removing barriers to access learning, flexibility of learning provision, student-centeredness, supporting students and constructing learning programmes with the expectation that students can succeed (UNISA, 2008).

The utilization behaviour is the degree to which the subject matter was utilized either directly or through advice has been referred as the utilization behaviour. In the present study, the subject matter was referred as what has been learnt by the agri input dealers during the DAI course in the open and distance learning mode. An Agri-Input dealer is responsible for supplying right agricultural and allied inputs to the farmers at right price at the right time. As per the amendment of Fertilizer Act 2015 and Insecticide Act 2015 (Ministry of Agriculture and Farmers Welfare, Govt. of India, New Delhi, 2015) Agri Input retailers should be qualified with minimum of Diploma in Agriculture at least. In this regard, the Agri-Input dealers' association approached the Tamil Nadu Agricultural University, Coimbatore to offer a suitable, Diploma course for them to comply with the amendment of the Fertilizer Act 2015 and Insecticide Act 2015.

Accordingly, the Directorate of Open and Distance Learning, TNAU, Coimbatore started offering a one year Diploma course entitled "Diploma in Agri-Inputs" from August 2016 onwards which impart relevant and location specific agricultural education to equip the input dealers with sufficient knowledge on crop protection and production technologies so as to enable them to address the day-to-day problems being faced by the farmers at the field level.

The classes were planned for 48 weeks and conducted on Saturdays with a total of 96 sessions out of which 80 and 16 were theory and practical classes respectively on Plant diseases and it causes, Bio-control methods, Pesticides trade name, Types of Nematodes and its importance in Agriculture, Integrated nematode management, Horticultural crops and its cultivation techniques, Irrigation methods & technology, Crop insurance schemes, Credit facilities for farmers, Implements & tools used in farming, Importance of crop physiology, TNAU crop booster benefits and usage methods, Types of bio-fertilizers and its importance, Mass production of bio-fertilizers and Quality control of bio-fertilizers. Hence this study was undertaken with the following objectives.

OBJECTIVES

- To assess the levels of utilization behaviour of learners of Diploma in Agri Inputs course through Open and Distance Learning Mode
- To analyze the relationship of the profile characteristics of the respondents with their utilization behaviour

METHODOLOGY

The Diploma in Agri-Inputs (DAI) course was offered in 24 study centres of Tamil Nadu Agricultural University, Coimbatore. Out of the 24 study centres, Agricultural Research Station, Virinjipuram, Vellore district of Tamil Nadu had the highest enrollment (149) for DAI course and 142 were qualified. Hence by employing total population sampling, all the 142 qualified students were surveyed by using a well-structured interview schedule prepared and the data were collected on utilization behavior of distance learners in different courses namely Plant diseases and it causes, Bio-control methods, Pesticides trade name, Types of Nematodes and its importance in Agriculture, Integrated nematode management, Horticultural crops and its cultivation techniques, Irrigation methods and technology, Crop insurance schemes, Credit facilities for farmers, Implements and tools used in farming, Importance of crop physiology, TNAU crop booster benefits and usage methods, Types of bio-fertilizers and its importance, Mass production of bio-fertilizers and Quality control of bio-fertilizers. The collected data were analyzed by employing percentage analysis, mean and standard deviation, correlation and regression analyses.

RESULTS AND DISCUSSIONS

Levels of Utilization Behaviour of DAI Course by the Learners

The levels of utilization behaviour of the respondents are presented in Table 1. It could be concluded from Table 1 that 59.20 per cent of the respondents were found at medium level of utilization behaviour followed by 26.10 and 14.70 percentages at high and low levels of utilization behaviour. This finding is lined with Kumar (2000) who reported that most of the respondents had a medium level of utilization behaviour. Yeswanth (2000) observed that half (50.00%) of the respondents had low level of utilization behaviour followed by 27.17 and 22.22 percentages at high and medium levels respectively. Maheswari (2011) and Shakya *et al.*, (2012) suggested that 43.34 and 48.75 of the respondents respectively had high level of utilization behaviour. Archana (2014) opined that more than two fifth (42.50%) of the respondents had fully utilized the subject matter followed 40.00 and 17.50 percentages at medium and low levels respectively.

Relationship of the Profile Characteristics of the Respondents with their Utilization Behaviour

Correlation and regression analyses were done to find out the relationship and contribution of the profile characteristics of the respondents towards the utilization behaviour respectively and the results are given in Tables 2 and 3.

It could be seen from Table 2 that out of 15 independent variables, nine variables *viz.*, Progressiveness (X_3), Content credibility (X_4), Perceived experiences (X_5), Information seeking behaviour (X_7), Information sharing behaviour (X_8), Message clarity (X_9), Appraisal on teachers teaching (X_{11}), Perception on physical facility (X_{12}) and Perception on teacher taught interaction (X_{13}) had shown positive and significant relationship with utilization behaviour at one per cent level of probability. This finding derives support from Archana (2014) who reported that progressiveness and perceived experiences had a positive and significant relationship with utilization behaviour at one per cent level of probability. Only one variable *viz.*, educational status (X_1) had shown a positive and significant relationship with utilization behaviour at five per cent probability level. This finding is in line with Maheswari (2011) who found that educational status had positive and significant relationship with utilization behaviour at five per cent level of probability.

It is evident from the results of Table 3 that out 15 variables, the variable perception on teacher taught interaction (X_{13}) had a positive and significant influence with the utilization behaviour at one per cent level of probability. This suggest that a unit increase in teacher taught interaction (X_{13}) would increase the utilization behaviour of learners by 0.266 units. This finding is contradictory with Maheswari (2011) and Archana (2014). The regression coefficients of occupational status (X_2), appraisal on teacher teaching (X_{11}) and perception on instructional methods (X_{14}) were found to be positively influencing the dependent variable at five per cent probability level. This indicates that a unit increase in occupational status (X_2), appraisal on teacher teaching (X_{11}) and perception on instructional method (X_{14}) would increase the utilization behaviour of learners by 0.134, 0.171 and -0.138 units respectively.

CONCLUSIONS

The present study concluded that nearly sixty per cent of the respondents were found at medium level of utilization behaviour. Educational status, Progressiveness, Content credibility, Perceived experiences, Information seeking behaviour, Information sharing behaviour, Message clarity, Appraisal on teachers teaching, Perception on physical facility and Perception on teacher taught interaction had positive and significant relationship with the utilization behaviour. Perception on teacher taught interaction, occupational status, appraisal on teacher teaching and perception on instructional methods had positive and significant influence with the utilization behaviour of learners of Diploma in Agri Inputs course

through Open and Distance learning mode.

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REFERENCES

1. Altunisik, R. 2013. *The role of lecturer related factors in students' perceptions and satisfaction in distance education* *Procedia Social and Behavioral Sciences*, 106 (2013) (2013), pp. 3075-3083
2. Archana K. Prasad. 2014. *Impact of certificate courses offered through ODL mode at TNAU*. Unpub. M.Sc (Ag.,) Thesis, AC & RI, TNAU, Coimbatore-641 003.
3. Dzakiria, H, A. Kasim, A.H. Mohamed and A.A. Christopher. 2013. *Effective learning interactivity as a prerequisite to successful open distance learning (ODL): A case study of students in the northern state of Kedah and Perlis, Malaysia*. *The Turkish Online Journal of Distance Education*, 14 (1) (2013), pp. 111-125
4. *Fertilizer (Control) Fourth Amendment Order, 2015. Insecticides (Amendment) Rules 2015*. Department of Agriculture, Co-operation and Farmers Welfare, Ministry of Agriculture and Farmers Welfare, Government of India.
5. IGNOU Act, 1885
6. Karaduman, M. and M.S. Mencet. 2013. *Attitude and approaches of faculty members regarding formal education and distance learning programs* *Procedia Social and Behavioral Sciences*, 106 (2013) (2013), pp. 523-532
7. Maheswari, B. 2011. *Perception and Utilization Behaviour of Distance Learners*. Unpub. M.Sc (Ag.,) Thesis, AC & RI, TNAU, Coimbatore- 641 003.
8. Senthil kumar, K. 2000. *Mass Media Utilization Behaviour of Farmers -An analysis*. Unpub. M.Sc (Ag.) Thesis, TNAU, Coimbatore- 641 003
9. Shakya, S., Badodiya, S., Kushwah, R., Jaulkar, A., & Chauhan, S. J. I. R. J. o. E. E. 2016. *Credit Utilization Pattern of Youths under Prime Minister Rozgar Yojana*. 12(2), 192-195.
10. Salunkhe, H. A., & Deshmush, B. B. (2014). *Impact Of Subsidy On Agriculture Sector In India-An Analytical Study*. *International Journal of Agricultural Science and Research (IJASR)*, 4(2), 9-15.
11. UNISA, Pretoria. 2008. *Open distance learning policy*. University of South Africa.
12. Yeswanth, D. 2000. *Impact of Distance Education Programme of TNAU through Correspondence Course: An Ex-post facto Study*. Unpub. M.Sc (Ag.) Thesis, TNAU, Coimbatore- 641 003

APPENDICES

Table 1: Distribution of the Respondents According to their Utilization Behaviour (n=142)

S. No.	Category	Number	Per cent
1.	Low	21	14.7
2.	Medium	84	59.2
3.	High	37	26.1
Total		142	100

Table 2: Simple Correlation Coefficient of the Profile Characteristics of the Respondents and their Utilization Behaviour (n=142)

S. No.	Variables	Correlation Coefficient
X ₁	Educational status	0.203*
X ₂	Occupational status	0.151 ^{NS}
X ₃	Progressiveness	0.246**
X ₄	Content credibility	0.678**
X ₅	Perceived experiences	0.658**
X ₆	Medium of instruction	0.023 ^{NS}
X ₇	Information seeking behaviour	0.314**
X ₈	Information sharing behaviour	0.385**
X ₉	Message clarity	0.513**
X ₁₀	Needs of distance learner	0.005 ^{NS}
X ₁₁	Appraisal on teachers teaching	0.523**
X ₁₂	Perception on physical facility	0.488**
X ₁₃	Perception on teacher taught interaction	0.599**
X ₁₄	Perception on instructional methods	-0.151 ^{NS}
X ₁₅	Perception on instructional aids	0.188 ^{NS}

Table 3: Multiple Regression Analysis of the Profile Characteristics with the Utilization Behaviour of the Respondents (n=142)

S. No.	Variables	Partial Regression Coefficient (b)	SE	't' Value
1	Educational status	-0.044	0.33	-0.720 ^{NS}
2	Occupational status	0.134	0.30	2.184*
3	Progressiveness	-0.055	0.35	-0.859 ^{NS}
4	Content credibility	0.172	0.05	1.813 ^{NS}
5	Perceived experiences	0.106	0.10	1.049 ^{NS}
6	Medium of instruction	-0.055	3.91	-0.936 ^{NS}
7	Information seeking behaviour	0.083	0.10	1.171 ^{NS}
8	Information sharing behaviour	-0.065	0.26	-0.837 ^{NS}
9	Message clarity	0.079	0.07	0.998 ^{NS}
10	Needs of distance learner	-0.036	0.06	-0.577 ^{NS}
11	Appraisal on teachers teaching	0.171	0.10	2.282*
12	Perception on physical facility	0.055	0.24	0.722 ^{NS}
13	Perception on teacher taught interaction	0.266	0.09	3.227**
14	Perception on instructional methods	-0.138	0.06	2.054*
15	Perception on instructional aids	0.063	0.03	0.943 ^{NS}

$R^2 = 0.593$ ** = significant at 1 % level

$F = 11.732$ * = significant at 5 % level

NS = Non significant

